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2. Linking WASH and Nutrition

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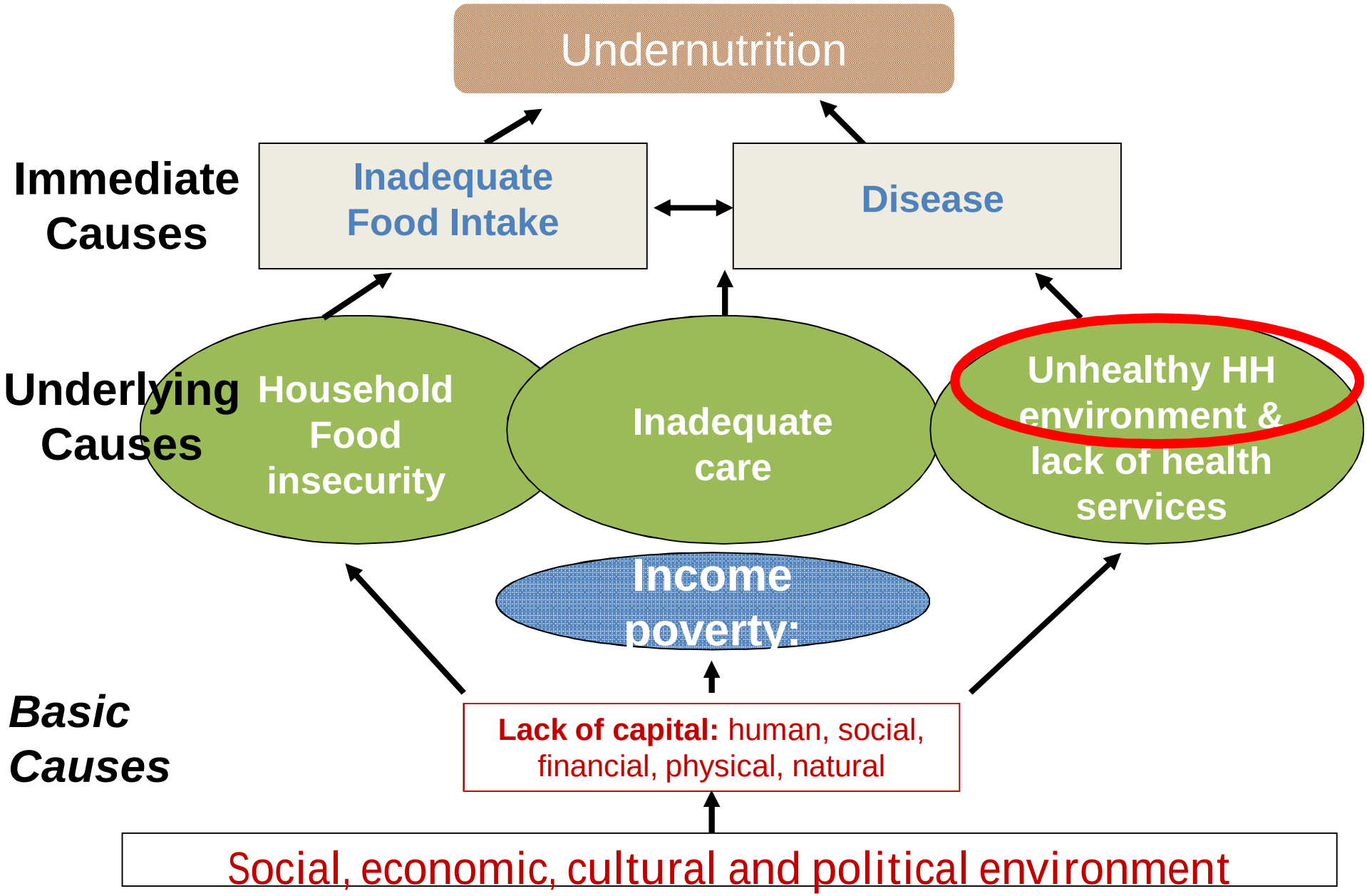
Causal framework for child undernutrition



Multisectoral vs. Integrated Programming

- Co-location of multiple sectors in the same geographical area

- Tries to understand & meet the multiple needs of an individual
- Joint planning & implementation across sectors
- More cost-efficient for both the service deliverer (€/ beneficiary) & the programme participant (opportunity cost)

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Interventions & Approaches

Nutrition

- Screen, refer & treat acute malnutrition
- Promote optimal nutrition & health behaviours via behaviour change communication/ counselling
- Provide food or micronutrient supplements
- Promote nutrition-sensitive agriculture (e.g. nutritious crops in home gardens)
- Build capacity of government nutrition counterparts to deliver nutrition services

WASH

- Establish/ repair water points (boreholes, hand pumps)
- Water trucking in emergencies
- Facilitate construction of latrines
- Promote optimal hygiene behaviours
- Promote solid waste management
- Support water committees
- Build capacity of government WASH counterparts to manage water quality & resources

Linking points for WASH & Nutrition

1. Joint assessments and surveys
2. Harmonised behaviour change messages & approaches
3. Community mobilisation
4. Multi-skilled community outreach teams / counsellors
5. Cross-train nutrition & WASH staff for systems thinking
6. Ensure clean water supply, latrines & handwashing facilities at health centres / nutrition treatment sites
7. Ensure access to ORS & Zinc via different channels
8. Identify gender issues; promoting gender equality

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Joint assessments & surveys (1)

- **Emergency assessments**: being aware of what to look for – key behaviours, access to water points/ latrines; waste disposal; rapid MUAC assessment of children
- **Surveys**: different people in household may be asked different questions i.e. mothers of under-twos for nutrition vs. head of HH for some WASH questions, but it can work
- **Nutritional status & morbidity indicators:** useful outcomes for both sectors

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Harmonised Behaviour Change Messages & Approaches (2)

- **Develop a single set of simple messages & counselling cards** covering essential hygiene, health, infant & young child feeding, health seeking (including 'Baby WASH')
- **Joint analysis of the barriers to optimal behaviours**. Joint training on the Barrier Analysis method.
- Utilise the range of contact points for all mesages– water pumps, household visits, community meetings, health facilities

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Important behaviours for both WASH and Nutrition (2)

Nutrition

- Feed women & children diverse diet
- Feed women & children sufficient quantities
- Feed children sufficient frequency
- Seek treatment services for sick or thin children

WASH-Nutrition

- WASH hands (w/ soap) at critical times
- Dispose faeces safely (latrine or bury)
- Exclusively breastfeed to 6 months (a hygiene intervention!)
- Treat water (chlorine, boil, solar disinfection; filter)
- Store water in vessel with narrow neck; don't touch inside
- Prepare foods hygienically (various)
- Treat diarrhoea with ORS & zinc

WASH

- ?

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‘Baby WASH’ (2)

- Protected space for children to rest/ play (away from the chicken poo & contaminated soil they so love to put in their mouths!)
- If possible, also fence the homestead
- Wash child w/ soap (hand, face, bum) daily
- Quick burial of children's feces and associated washwater, clean with soap the cloth or ustensil (potty) used
- Person in charge of the child should wash hands with soap after any contact with fecal material, before food prep
- Proper transport and storage of drinking water in the home
- Boil or disinfect drinking water, at least water consumed by children aged from 6 to 24 months
- Exclusively breastfeed to 6 months
- Avoid serving leftover food

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Baby WASH (2)

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Community Mobilisation (3)

- **Engage jointly with community leaders**
- **Don’t set up parallel commitees** – jointly assess what exists & how to strengthen the existing for improved WASH, nutrition & health
- **Potential to use the CLTS model for nutrition**?

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Multi-skilled outreach agents & counsellors (4)

- **Engage/ employ a single frontline community worker with knowledge and skills across sectors –** reflect this in job descriptions/ expectations
- **Build knowledge & counselling skills across sectors of existing community agents**
- **Recruit greater numbers of multi-skilled outreach agents –** ideally can actually increase coverage & frequency of

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Cross train Nutrition & WASH staff (5)

- **Regular, can be somewhat informal, training for staff at all levels**
- **Promote (and if needed force!) joint activity planning & common M&E frameworks**

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Ensure Access to ORS & zinc tabs

- **Via health system -** nutrition teams working on treatment of acute malnutrition are used to working with medical supply systems for RUTF, drugs
- **Via private sector** – WASH teams may have more experience with this (spare parts, etc)

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Clean water supply, latrines & hand washing stations at health facilities

- Assess gaps at health facilities
- Liaise with WASH agents and district health managers to address
- Simple technologies – tippy taps, etc.

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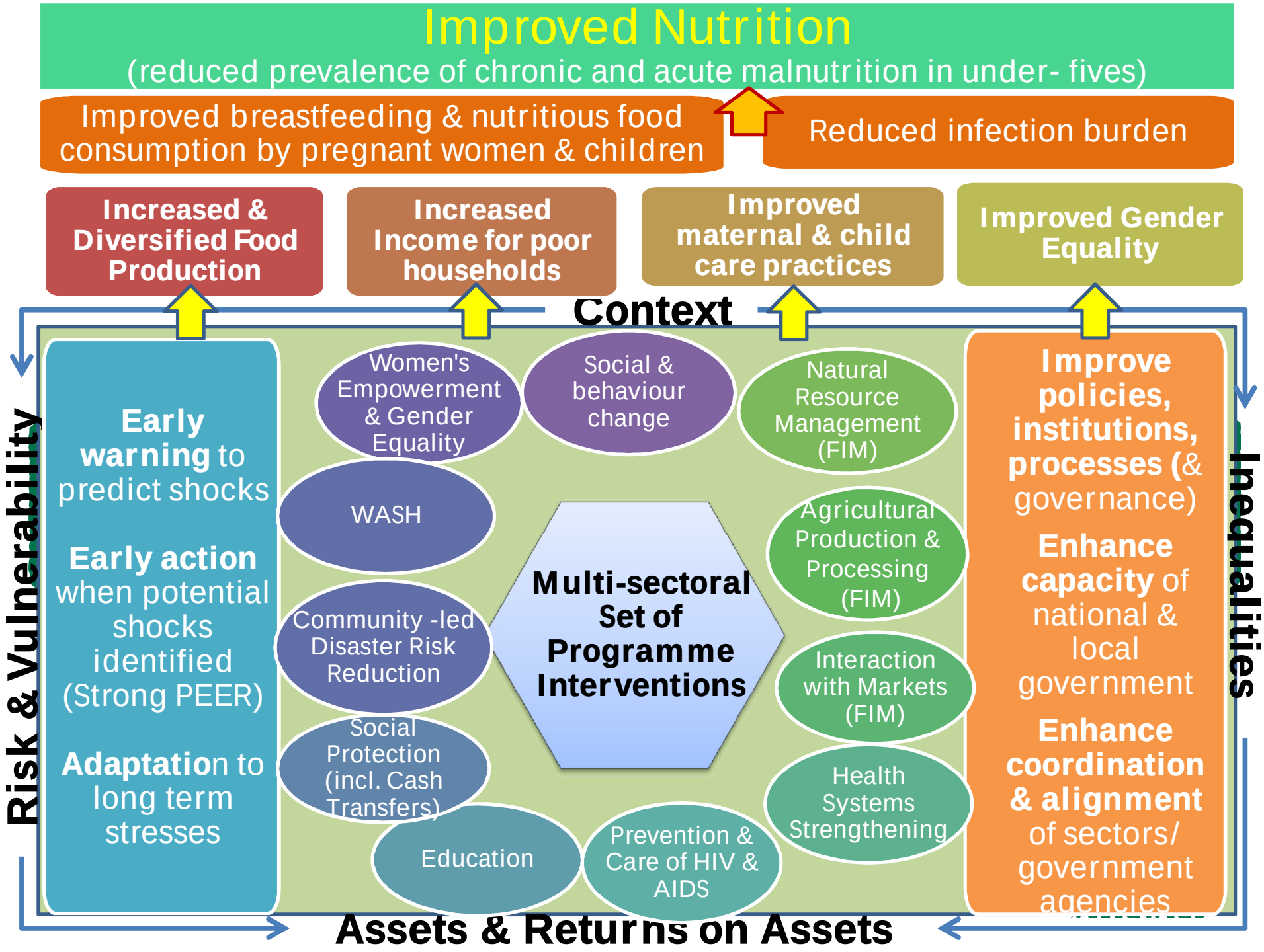
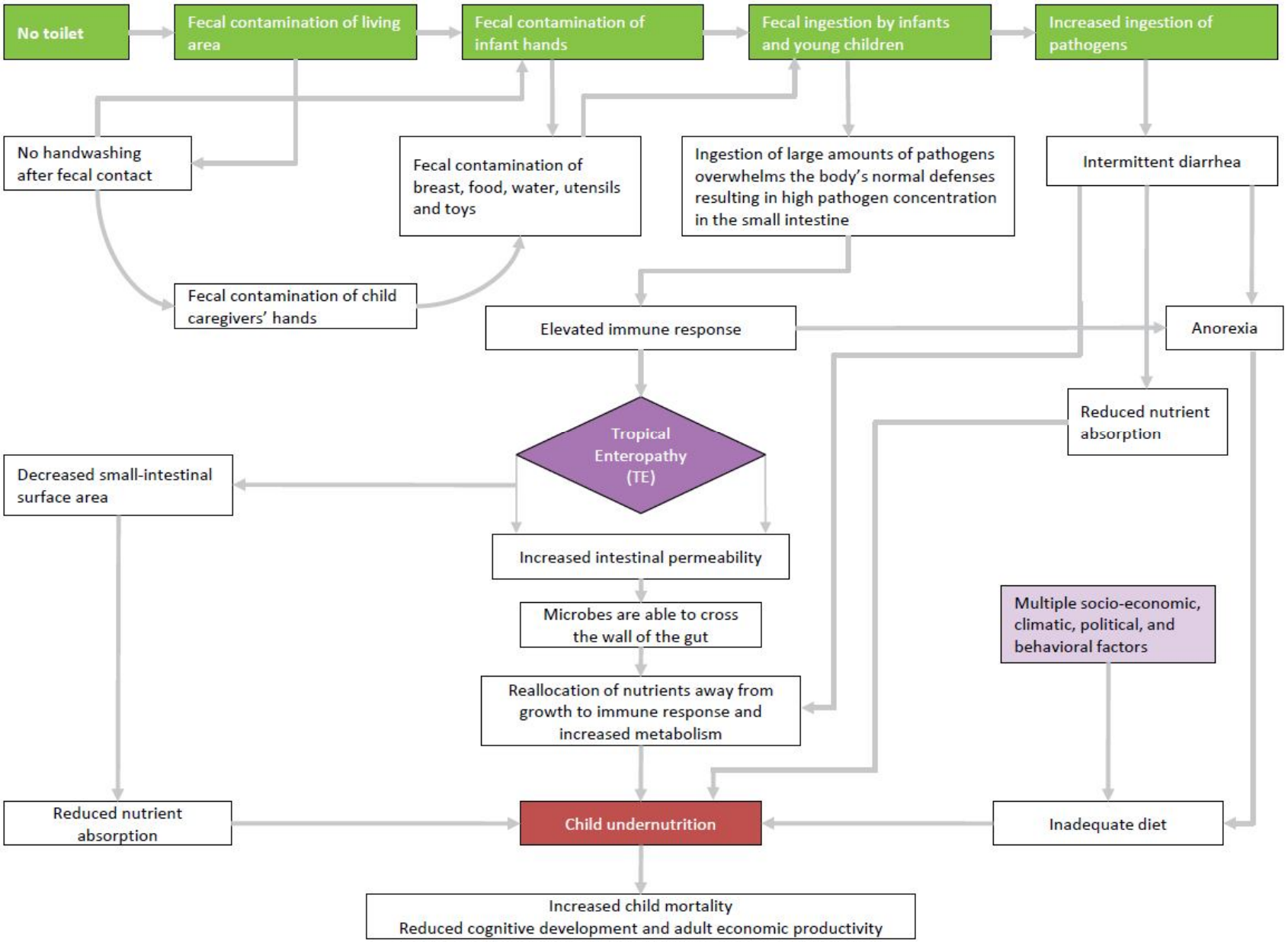

Improved Nutrition
(reduced prevalence of chronic and acute malnutrition in under- fives)
Improved breastfeeding & nutritious food consumption by pregnant women & children
Reduced infection burden
Increased & Diversified Food Production
Increased Income for poor households
Improved maternal & child care practices
Improved Gender Equality
Context
Risk & Vulnerability
Inequalities
Early warning to predict shocks
Early action when potential shocks identified (Strong PEER)
Adaptation to long term stresses
Women's Empowerment & Gender Equality
Social & behaviour change
Natural Resource Management (FIM)
WASH
Agricultural Production & Processing (FIM)
Community -led Disaster Risk Reduction
Multi-sectoral Set of Programme Interventions
Interaction with Markets (FIM)
Social Protection (incl. Cash Transfers)
Health Systems Strengthening
Education
Prevention & Care of HIV & AIDS
Improve policies, institutions, processes (& governance)
Enhance capacity of national & local government
Enhance coordination & alignment of sectors/ government agencies
Assets & Returns on Assets

Nutrition specific & nutrition sensitive interventions


plumpy nut
nutriset

Figure 4: Pathways by which fecal contamination leads to environmental enteropathy and child undernutrition
(Adapted from Humphrey 2009)



Linking with maternal, neonatal, child health programmes as well…

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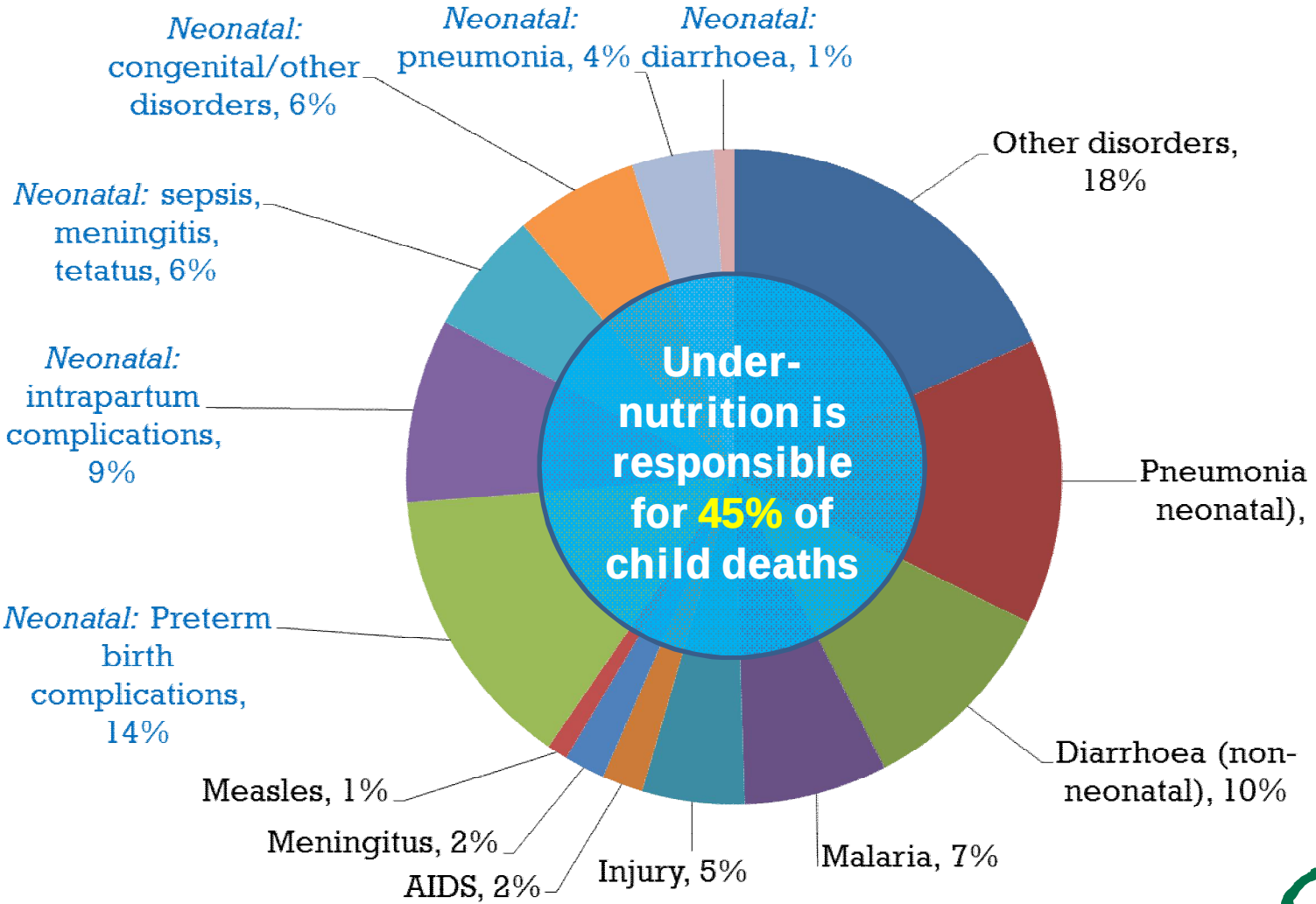
Causes of under 5 mortality

(Analysis of causes of child mortality, Lancet 2012)



100% = 7.6 million child deaths annually

45% = 3.1 million child deaths annually due to undernutrition

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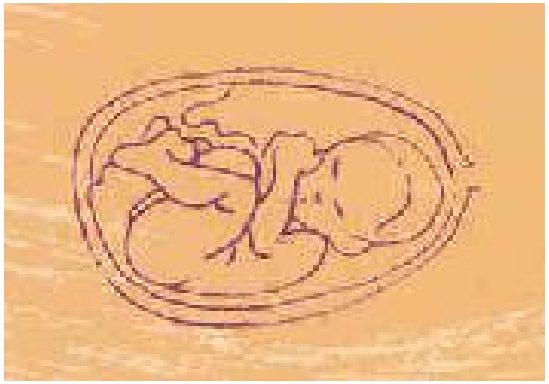
Low Birth Weight Babies

- 30 million low birth weight babies born each year 23% of all births
- Baby weighing <2500 grams,
- Roughly half are due to poor maternal nutrition while in utero



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Acute Malnutrition

global acute malnutrition (GAM)

Moderate wasting

Severe wasting and/or oedema

Moderate acute malnutrition

Severe acute malnutrition

1 in 10 children is wasted

- Increased mortality risk - severe acute malnourished child is 9 times more likely to die than normal child
- Can often be reversed if treated

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1 in 4 children is stunted ‘invisible malnutrition’

9 Yrs

- Increased mortality risk – severely stunted child is 4 times more likely to die than normal child
- Poor brain development
- Lower work capacity
- Largely irreversible

Forms of undernutrition

FOETAL GROWTH RESTRICTION	SUB-OPTIMAL BREAST-FEEDING	STUNTING	WASTING	SPECIFIC MICRONUTRIENT DEFICIENCIES: Vit A, Iron, Iodine, Zinc, others…
			(Also nutritional oedema)	
Under-nourished in the womb	Insufficient 0-12 months or mixed feeding <6 months	"Chronic malnutrition"	"Acute malnutrition"	"Hidden hunger"
HOW MEASURED				
Small for gestational age or low birth weight	Reported or observed practice	Low height for age (Z-scores)	Low weight for height (Z-scores) or Mid-Upper Arm Circumference Pitting oedema test	Blood or urine samples or clinical assessment of signs/ symptoms

Forms often overlap, especially among the poor & in emergencies

Why do we care about undernutrition?

- **Responsible for 45%** of under-five mortality
- **Serious and irreversible consequences**
- **We *can* do something about it:**
  - **Could reduce under-five deaths by 15%** (1 million lives saved per year) if **10 evidence-based, cost-effective nutrition interventions** were scaled up to 90% coverage in countries with high levels of stunting
  - **Treatment effective for some forms** (e.g. acute)
  - **Early prevention** possible for all forms
  - Other nutrition sensitive approaches can help eliminate the remaining deaths, but more evidence needed..

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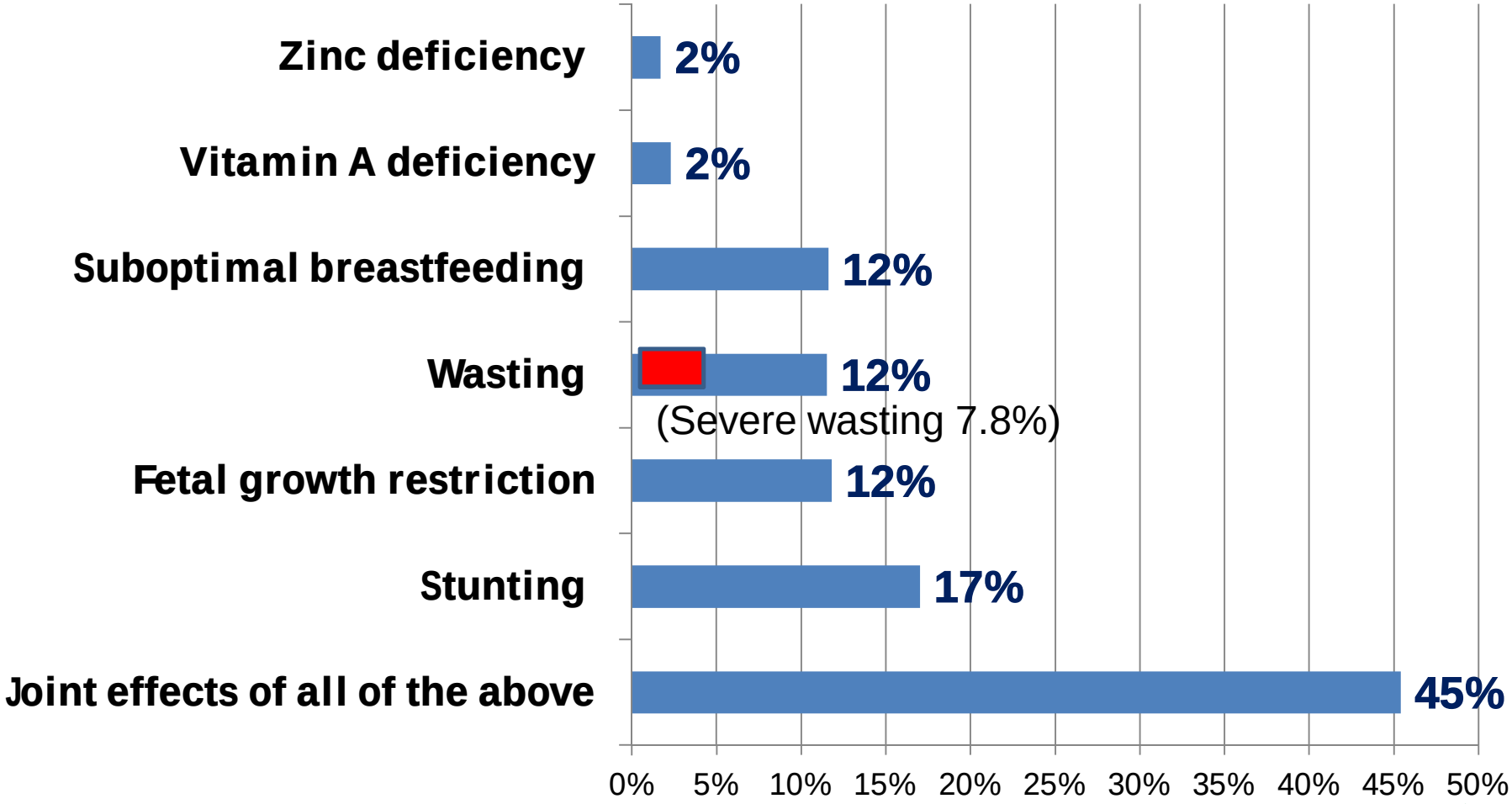
% under-five mortality attributable to different forms of undernutrition



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Why do we care about undernutrition?

- **It is shockingly common:**

- **Of the roughly 600 million children under-five:**
  - **~1 in 4 is stunted (164 million)**
  - **~1 in 10 is wasted (52 million)**
  - **~1 in 30 is severely wasted (19 million)**
  - **~2 in 5 is anaemic (340 million)**
  - **~1 in 3 is vitamin A deficient (190 million)**

- **Among pregnant women:**
  - **~1 in 10 is underweight in Africa & Asia (BMI <18.5)**
  - **~1 in 5 is iron deficient**
  - **~1 in 7 is vitamin A deficient**

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How nutritional status is determined

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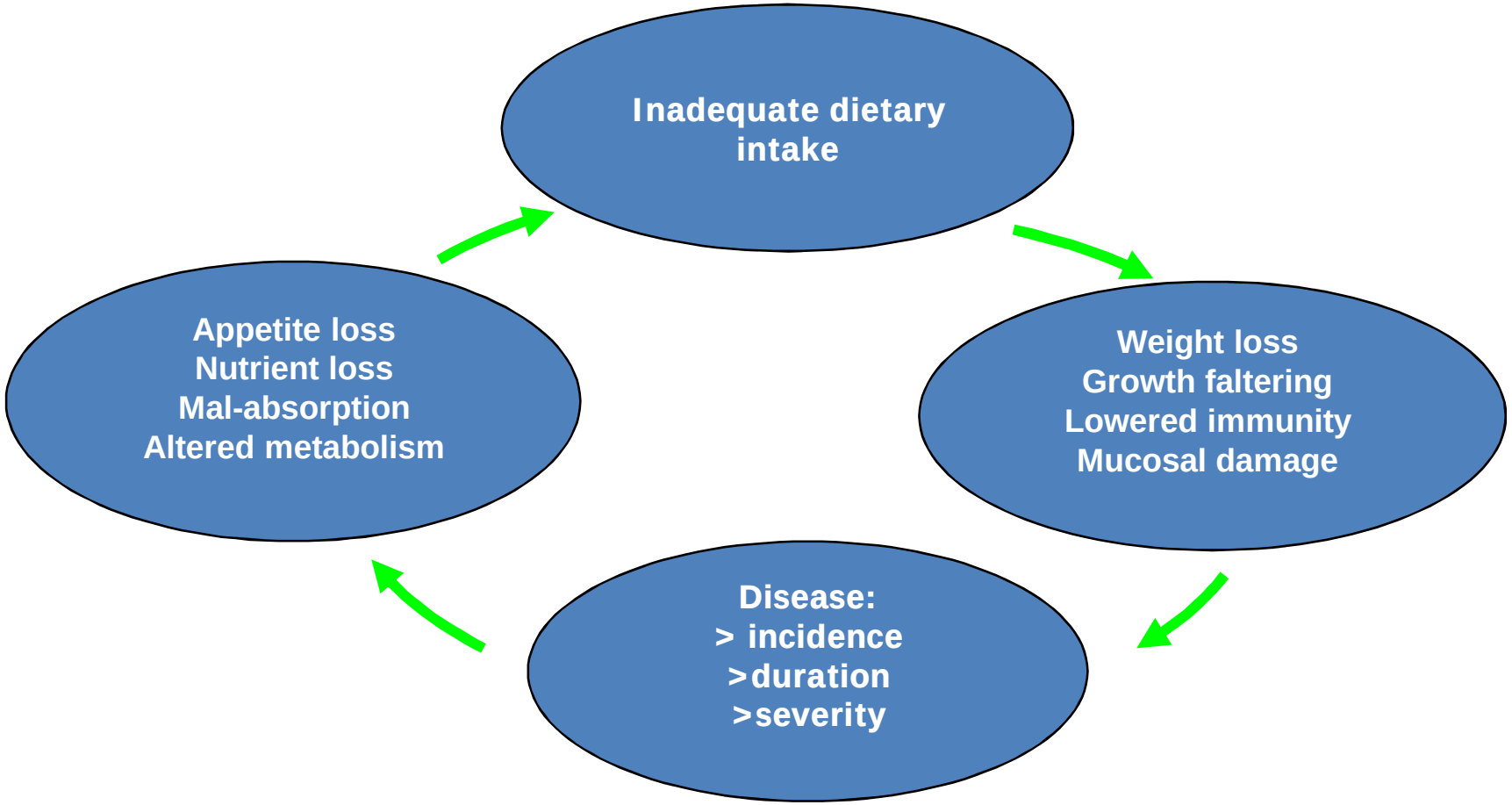
What is the Malnutrition Infection Cycle?



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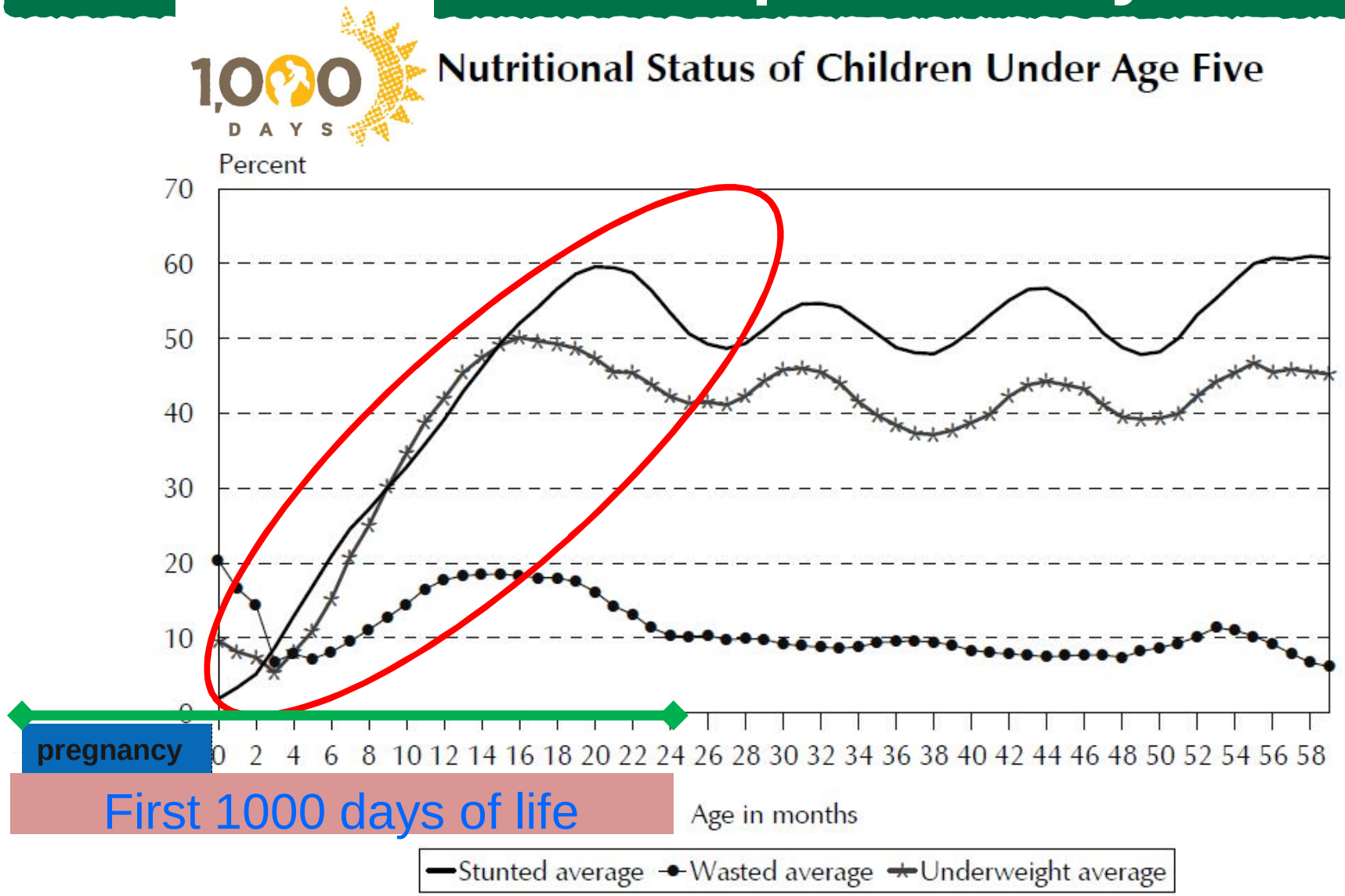
‘Window of opportunity’ to intervene: conception to 2 years



What can be done?

- **Nutrition-specific interventions (more direct)**
  - 10 evidence based interventions
  - If all implement at scale could reduce under-five mortality rate by 15%

- **Nutrition-sensitive interventions (less direct)**
  - Less evidence
  - But needed alongside health interventions to address remaining 85% of mortality & sustain impact

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Nutrition specific & nutrition sensitive interventions & programmes

Nutrition specific

Address the immediate determinants of fetal & child nutrition & development, i.e.:

- Adequate food & nutrition intake
- Feeding, caregiving & parenting practices
- Low burden of infectious disease

'Short route'

Nutrition sensitive

Address the underlying determinants of fetal and child nutrition & development, i.e.:

- Food security
- Adequate caregiving *resources* at maternal, household & community level
- Access to health services
- A safe & hygienic

'Longer (possibly more sustainable) **route'**

Top 10 cost-effective nutrition specific interventions *(Lancet 2013)*

- **Promotion of breastfeeding and supportive strategies**
  - Exclusive breastfeeding - individual & group counselling (1)
- **Promotion of optimal complementary feeding**
  - Behaviour change communication/ counselling on optimal child feeding (2a)
  - With provision of complementary foods in food-insecure settings (2b)
- **Dietary supplementation for pregnant women**
  - Food supplement for women of reproductive age & pregnant women, especially if wasted (3)
- **Micronutrient supplementation**
  - Folic acid in preconception and pregnancy (4)
  - Iron during pregnancy (but now suggest multiple micronutrients might be better)
  - Multiple micronutrients for women of reproductive age (5) (including iron)
  - Calcium for pregnant women (6)
  - Vitamin A for children (7)
  - Preventative zinc supplementation for children (8)
- **Disease prevention and management**
  - Management of SAM (9)
  - Management of MAM (but no real details on how?!) (10)
- **Fortification of foods**
  - (Iodised salt)

Where's WASH? Watch this space….Cochran review?

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